



Education for Sustainability Initiatives

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Office of Research and Development

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RESEARCH &
DEVELOPMENT

*Building a
scientific
foundation
for sound
environmental
decisions*

Panel Discussion: Education for the Future

- Alan D. Hecht:
EPA: Office of Research and Development
- Jaimie P. Cloud:
Sustainability Education Center, NY
- Alan Elzerman:
Clemson University
- Sally Shuler:
NAS and Smithsonian



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Education for Sustainability

“There is nothing more essential in moving toward the long-term goal of sustainability than teaching the next generation how to incorporate sustainability principles into their work.”

Dr. Paul Gilman, EPA Science Advisor and
Assistant Administrator for Research and Development



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Educational Themes

- Build capacity
- Professional training
- K-12 foundations
- Inform the Public



World Summit Institute for Sustainable Development, Johannesburg, South Africa, 2002







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Sustainability Challenges

- 2.8 billion people live on less than \$2/day; 1.1 billion people lack safe drinking water
- 2 billion people lack access to modern energy supplies
- 2.3 billion people lack access to sanitation
- 3 billion additional people by 2050: 99% of which will be in developing countries



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Social Marketing



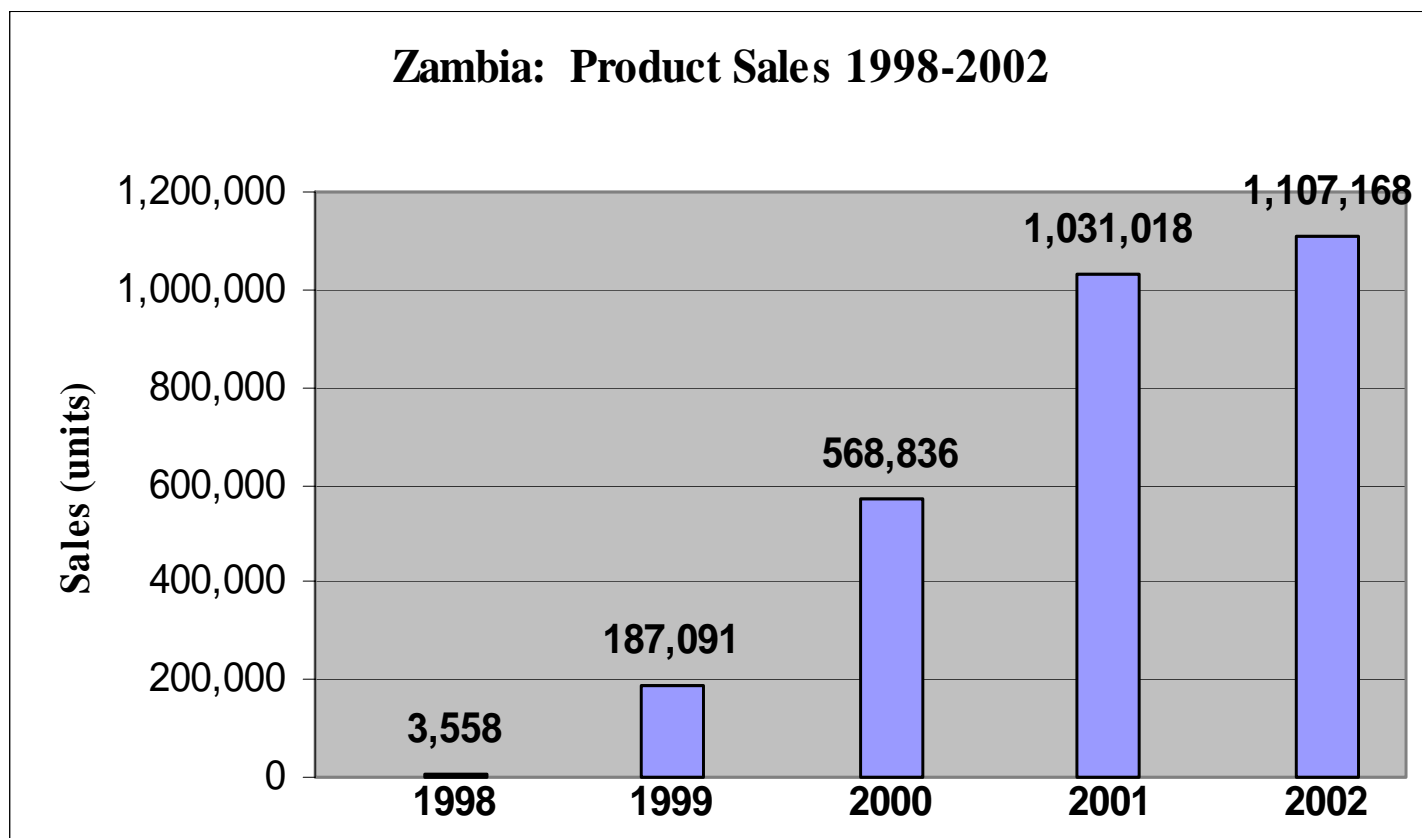
Children review uses of safe water presented in a flip chart developed by PSI in conjunction with its safe water and hygiene campaign in Afghanistan.



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Social Marketing: Disinfectant in Zambia





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UN Decade of Education for Sustainable Development

- Promote and improvement of high quality, relevant basic education;
- Reorient existing education policies and programs to address the social, environmental and economic knowledge
- Develop public understanding and awareness of the principles of sustainable development;
- Develop training programs to ensure that all sectors of society have the skills necessary to perform their work in a sustainable manner.



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The Next Generation

- Student Design Competition
- Engineering and Chemical school curricula
- Information and tools kits
- Universities/Schools as centers for sustainable operations
- Reports on the environment

Future: Is there a need for centers that promote sustainable education at all levels?



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The P3 Award

a student design
competition for
sustainability
people,
prosperity
and the planet

P3
award

www.epa.gov/P3

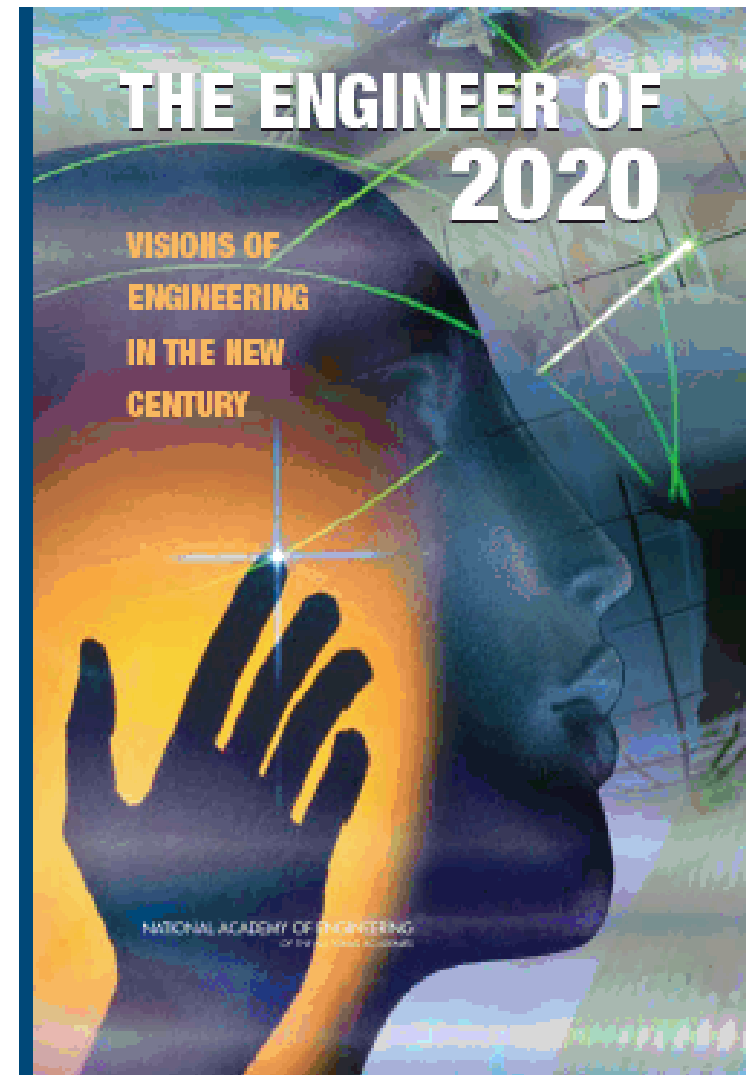
 EPA United States
Environmental Protection
Agency



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***EPA/NSF
sponsored
workshop
at the
National
Academy of
Engineering***





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Benchmarking the Integration of Sustainability into Curricula at Colleges and Universities

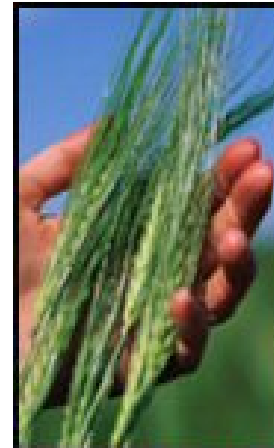
People

**Partnering for
innovative approaches**



Prosperity

**Engineering for
our future**



Planet

**Productivity without
environmental compromise**





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Outreach


U.S. Environmental Protection Agency

Sustainability

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Sustainability is the ability to achieve economic prosperity while protecting the natural systems of the planet, and providing a higher quality of life for its people. Individuals, communities and institutions are developing and implementing sustainability practices with the help of dozens of EPA programs, partnerships and policy tools. This site provides links to many EPA programs and tools that contribute to sustainability. These are organized into three main areas:

Planning & Practices




Programs and tools that anticipate new problems; assist in long-range, integrated planning; help educate a new generation of leadership; and promote the integration of social, economic and environmental policies. | [More Info](#) |

Scientific Tools & Technology



Programs and tools that use underlying scientific and engineering knowledge to support the development of sustainability tools and techniques. | [More Info](#) |

Measuring Progress



Programs and tools that provide a science-based foundation for monitoring and assessing trends in the environment and support decision-making in government, businesses and communities. | [More Info](#) |

Events

[P3 Award](#): A student design competition for sustainability

[EPA Science Forum 2004: Healthy Communities and Ecosystems](#)

[UN Commission on Sustainable Development, 12th Session](#) [EXIT disclaimer](#), April 14-30, 2004, New York, N.Y.

[Business and Sustainability Conference](#) [EXIT disclaimer](#), June 9-11, 2004, New York, N.Y.

"Through the power of collaborative networks and partnerships, federal agencies, state governments, and the industrial and scientific communities can come together to achieve the goal of sustainability for people, prosperity and the planet."
~Michael O. Leavitt, Administrator
U.S. Environmental Protection Agency



EPA United States
Environmental Protection Agency
Office of Research and Development



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Envirofacts: one stop source for environmental information

Topics

**Waste
Water
Toxics
Air
Land
Radiation
Compliance
Other
Maps**

Advanced Capabilities





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Looking Ahead: info-bio- nano-technologies

